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READING PERFORMANCE OF ELEMENTARY STUDENT TEACHERS IN A DEVELOPING INSTITUTION.

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A STUDY WAS CONDUCTED AT BISHOP COLLEGE, DALLAS, TEXAS, TO EXAMINE THE READING NEEDS OF PROSPECTIVE ELEMENTARY TEACHERS. SCORES ON THE NELSON DENNY READING TESTS, ADVANCED FORM A, ON THE OTIS QUICK SCORING TESTS OF MENTAL ABILITY, GAMMA FORM BM, AND GRADE POINT AVERAGES COVERING 4 YEARS OF COLLEGE WORK WERE ANALYZED FOR 29 NEGRO ELEMENTARY STUDENT TEACHERS. APPROXIMATELY ONE THIRD OF THE SUBJECTS WERE IN THE 30-40 AGE RANGE, AND TWO-THIRDS WERE LESS THAN 25 YEARS OLD. RESULTS INDICATED THAT THE MEAN TOTAL GRADE EQUIVALENT ON THE NELSON DENNY READING TEST FOR THE SAMPLE GROUP TESTED WAS SUFFICIENTLY BELOW THAT OF THE NORMATIVE POPULATION TO JUSTIFY THE ELEMENTARY STUDENT TEACHERS' NEED FOR READING IMPROVEMENT. THE CORRELATION COEFFICIENTS BETWEEN SCORES WAS NOT SIGNIFICANT ENOUGH TO STATE THAT THESE STUDENT TEACHERS READ AT LEVELS COMMENSURATE WITH THEIR IQ, OR THAT THEIR GRADE POINT AVERAGES WERE COMMENSURATE WITH THEIR READING PERFORMANCE. VARIABLES SUCH AS AGE, SIZE OF HIGH SCHOOL GRADUATING CLASS, AND EDUCATION AND OCCUPATION OF PARENTS DID NOT SEEM TO INFLUENCE THE READING SCORES OF THE SUBJECTS. A SIMILAR STUDY WITH 200 SUBJECTS EQUATED ON THE BASIS OF AGE AND INTELLIGENCE IS PLANNED. A REVIEW OF RELATED LITERATURE AND REFERENCES ARE INCLUDED. THIS PAPER WAS PRESENTED AT THE NATIONAL READING CONFERENCE ANNUAL MEETING (ST. PETERSBURG, DECEMBER 1, 1966). (RH)

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READING PERFORMANCE OF ELEMENTARY STUDENT TEACHERS IN A DEVELOPING INSTITUTION*

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INTRODUCTION

Established in 1881 at Marshall, Texas as a liberal arts college for Negroes, Bishop College, since 1961, has been located in Dallas. The academic program of the college is designed primarily to prepare students for teaching, for

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the pastoral ministry, and for careers in music, business, social work, health, and recreation. It also offers pre-professional training for dentists, physicians, and lawyers. Although the college faculty of approximately 100 is integrated, the student body of more than 1300 is almost entirely Negro with but "token" integration. It has been designated by the U. S. Office of Education as a "Developing Institution."

Because more than 75 per cent of the school's graduates enter the teaching profession, the teacher education program is under continuous evaluation by the Texas Education Agency. This agency makes suggestions concerning both the current program and proposed new or expanded programs in Teacher Education.

During the fall of 1965 a team of teachers, administrators, and curriculum experts appointed by the TEA spent one week on the campus of Bishop College reviewing and re-evaluating various facets of the program for teacher education. While discussing the strengths and weaknesses of the training program for elementary teachers, a member of the team suggested that data should be gathered concerning the reading abilities of the preservice teachers, and that improvement services might well be provided for those students who need and desire such a program. It was also suggested that a study of needs for reading improvement might serve as a springboard for a follow-up or continuing program of evaluation and improvement of the teacher preparation curriculum.

STATEMENT OF THE PROBLEM

There have been many claims (17), (12) and counterclaims (7) concerning the preparation and teaching performance of Negro teachers. Sawyer (17:26) says, "The predominantly Negro colleges must close the 'academic gap' and find their places among the nation's other institutions of higher learning." His statement is followed by examples of efforts in this direction and also by several suggestions for improvement.

In a study of 123 predominantly Negro colleges, McGrath (12) pointed to the paucity of research activities undertaken by their faculties and to the need for realistic remedial programs, wider use of professional counseling, and major improvements in elementary and secondary education. Keppel (18) reported that the preliminary findings indicate that Negro children in the south experience considerably more difficulty in learning to read than do middle class children of the north. He (10:9) suggests that we ".....develop an environment of questioning in our education, a climate for investigation, rather than the vindication of existing practices, a habit of searching, rather than languishing in the comfort of the status quo.....Let us recognize that in the process of continuous experimentation and reformation lies the only hope of keeping our schools in tune with the needs of our time."

These comments, together with the suggestion by the member of the visiting team from the Texas Education Agency, led to the present study, the purpose of which is to examine the reading needs of students who plan to teach in the

elementary schools and to provide remedial instruction for those needing and desiring help. A secondary purpose of this study is to provide a basis for improved cooperation between the department of education and the Reading Improvement Center.

From the findings in this study, attempts will be made to answer the following questions:

1. Do students at this institution who plan to teach at the elementary level show a need for reading improvement?

2. Are Grade Point Averages of these student teachers commensurate with their reading performance?

3. Do these student teachers read at levels commensurate with their intelligence quotients?

4. Can Intelligence Test Scores be used to predict Grade Point Averages?

RELATED LITERATURE

There appears to be a dearth of data specifically concerned with the reading performance of student teachers. Both Davies (6) and Michaelis (13) have indicated that a preponderance of the literature pertaining to student teaching is based on opinions, committee recommendations, surveys, rating forms, and descriptions of practices, and that few critical studies exist. Nevertheless, the few reports included here have some relevance to the problem.

Price (15) observed that good readers are more successful as student teachers than are poor readers. Having supervised and worked closely with more than 100 student teachers during the past few years, the writer believes strongly that

this observation is correct. Commenting on the traits of a good teacher, Anger (1) holds that the prospective teacher should have an above average working vocabulary and be able to read rapidly and with comprehension. He says that prospective teachers at Newark State College, New Jersey must do well on the Co-op Reading Test, SCAT, Minnesota Paper Form Board, Allport-Vernon-Lindsey Study of Values, Kuder Preference Record, and Guilford-Zimmerman Temperament Survey before being admitted to the Teacher Education program.

Castellano (5) suggests that standardized tests of achievement and intelligence and a composite score on speech, voice, and health should be required as a basis for estimating the potential for excellence of candidates for the teacher preparation program.

At Miami University 57 prospective elementary school teachers participated in a study to determine if college students enrolled in a Methods of Teaching Language Arts Course tend substantially to improve their own reading skills with no direct training during the course. Forms A and B of the Nelson Denny Reading Test were administered as pre and post-tests. On Form A, the students tended to score slightly higher than the normative population in rate of reading and comprehension, but slightly lower in vocabulary. In the post test, they scored slightly higher in vocabulary and in rate, but not in comprehension. The null hypothesis was partially disproved. (2)

Orlosky (14) at the University of Indiana, studied the reports of 50 of the most experienced supervising teachers to

discover the suggestions they had for improving the student teaching program. He found that a high per cent of the supervisors expressed a desire for increased emphasis in activities involving the student teacher in evaluation of the school and of self. Experience has shown that unless some formal diagnosis is made by the teacher training institution, the student is not prone to think of himself as inadequate in any area, more especially if he has been permitted to enter the laboratory experiences.

The psychologists believe that felt needs are basic to an individual's action, and one must actually feel that reading will meet his need before he undertakes to study it. (3) They further suggest that motivation will not be very strong unless it is in an area valued by both the individual and his friends as well as the society of which he is a part. Kinney (10:228) poses the question: "Is the student teacher capable of defining and collecting evidence on his own effectiveness, and can he direct his own re-education?"

As evidenced by Groff (9) in his study concerning the "Personality Self-Images of Student Teachers," a high percentage at every age range ranked themselves as possessing positive personality, i.e, capable, conscientious, etc. Their supervisors ranked them as 56.0 per cent correct and stated that the students were not as frank in their responses as they should have been.

Perhaps the most relevant study, included here is that reported by Stewart (18) of Texas Southern University in which

thirty-two student teachers were tested with the Otis Quick Scoring Tests of Mental Ability and the Nelson Denny Reading Tests in pre and post sittings for reading. The students were able to narrow their total grade equivalent range from 5.0 to 2.6 after participating in a "structured" reading course which met three times a week for a period of eight weeks. Incidently, the teacher education program of this predominantly Negro university has been publicly lauded by the Texas Education Agency for its efforts in remedial work in reading and in other basic areas.

Studies reviewed in this paper should illustrate the importance of elementary student teachers as pre-professionals getting to know the merits of self-evaluation for the purpose of improvement. These studies should also serve to alert teacher education faculties in "developing institutions" and others to the fact that more highly competent teachers are being prepared through the process of diagnostic and improvement programs offered by Reading and Counseling Services on college and university campuses throughout the country.

THE STUDY

Amplification of the Problem

Of the twenty-eight individuals registering for elementary student teaching at the beginning of the spring semester, 1966, four were admitted pending their making a satisfactory score on a second trial of the English Proficiency

Test which was to be administered three weeks later. An additional student entered the class at the beginning of the second eight weeks of training, thus bringing the total to twenty-nine.

Each student was provided with a syllabus and special attention was given to testing activities in which members of the class were to engage. Students were appraised of the pressing need for adequately prepared and research oriented teachers and for teacher education institutions to provide some opportunity for students to engage in as well as carry on systematic research projects as part of their student teaching experiences. (6), (10), (12), (17) Ninety per cent of the group stated that they had never been administered any standardized reading test and were anxious to see how they would fare. A few questioned taking the test on the grounds of jeopardizing their grade in student teaching. They were assured however, that scores made on the tests would not count against them.

A reading test, listening test, and mental maturity test were administered. After discussion of the results, the director of the reading laboratory was invited to talk to the class concerning a program for self-improvement and to demonstrate the use of materials and machines available for this purpose. (The college reading program, now in its second year of operation, is well equipped and well-staffed, and is presently functioning under a cooperative agreement with Atlanta University's Reading Center, funded by Title III of the Higher Education Act.)

Enthusiasm ran high during and immediately following the sessions with the reading director, yet, as time went by, no one was reported in the laboratory. When questioned as to what each was doing along the line of self-improvement, the most frequently given deterrents were: too much class work, job interference, transportation difficulties, and the minor personal problem of being in the group with freshmen "captives."

An investigation of class schedules and work-aid schedules revealed that those needing help most were engaged in a full course load, and, in addition, were either on fifteen hour work schedules at the college or full-time employed in the city. It was not unusual to find students leaving seminars headed for an eight hour job, or to other classes, thence to the job. In several instances, student teachers went directly to their teaching assignments from the job, which meant that such rigid schedules hardly left them with sufficient time for class preparation, rest or recreation. A second testing of this group would seem of little consequence.

Definition of Terms

The following terms in this study carry these designated meanings:

1. Developing institution. "Developing institution means a public or nonprofit private institution of higher education which meets the eligibility criteria of the Higher Education Act and has the

desire and potential to make a substantial contribution to the nation's higher education resources, but which for financial or other reasons is struggling for survival and is isolated from the main currents of academic life."[1] (19:12) (19:4)

2. Student Teacher. A student teacher is one who is acquiring practical teaching experience and skill under the guidance of a cooperating teacher in the classes of a public school, and has had no other teaching experience.

Procedures, Subjects, and Materials

The Nelson Denny Reading Tests, Advanced Form A, the Otis Quick Scoring Tests of Mental Ability, Gamma Form BM, and Grade Point Averages covering four years of college work were of prime consideration in this study. The entire class of twenty-nine elementary student teachers, including six males and twenty-three females comprise the subjects. Each of the two tests was administered the group at the beginning of the Spring Semester during a seminar period of one hour, one week apart.

An information form containing family background data was completed by each of the subjects, none of whom had taken previous course work with the examiner.

RESULTS

Presentation and Analysis of Evidence

On examining the results of the tests, grade point averages, and other evidence presented, it can be safely

assumed that this group is striking in its heterogeneity in several respects:

1. Table I shows that the actual mean achievement of the subjects on the Total Grade Equivalent of the Nelson Denny Reading Test was below the group's general capacity to achieve as measured by the OQSTMA. The mean I. Q. was 102, Total Grade Equivalent 10.2, and G. P. A. - 2.7.

Table I

Mean Scores of Three Variables

	6 males	23 Females	29 Total
1. I.Q. (OQS)	101	102	102
2. Gr.Eq. (NDR)	10.1	10.4	10.2
3. G.P.A. (4 Yrs.)	2.4	2.8	2.7

The one to five ratio of males to females as shown was not unusual due to the fact that fewer men enter elementary school teaching than women. The mean I. Q. for males was 101; females 102 with Total Grade Equivalents in Reading at 10.1 and 10.4 respectively.

Of the total population the two subjects with the highest I. Q. scores (113) achieved Total Grade Equivalent Reading scores of 11.3 and 9.9, while the two subjects at the lower end of the scale achieved I. Q.'s of 87 and 89 and achieved TGE's of 8.2 and 10.3, the latter being slightly higher than that achieved by one of the subjects with an

I. Q. of 113. This fluctuation of scores made by the same subjects on the three prime variables and the fluctuation of scores of those subsequently mentioned are more generally typical of the entire class than not. For example, the four subjects with an I. Q. of 106 each achieved Total Grade Equivalents of 13.0, 8.4, 9.3, and 9.8 respectively. The three subjects with an I. Q. of 97 each scored 11.6, 7.6, and 13.2 on TGE's.

Although this study was primarily concerned with the Total Reading Grade Equivalents, the reader might be interested in knowing that the mean achievement in Vocabulary was 11.2, in Comprehension 9.0, and Rate 7.1.

2. Scores of nine, or one-third of the subjects (all females) with Grade Point Averages of 3.0 to 3.8 on a four point scale are shown in Table II. A wide variation of scores can be easily seen for this group on inspection. Five of the subjects in this group of 9 showed TGE's above the class mean of 10.2. Three of these scored above the class mean I. Q. of 102 and two were below. Note that subject No. 1 with the highest G.P.A. ranked third in this sub-group on TGE; fifth in the total group; seventh in the sub-group in I. Q. score; and nineteenth in the total group.

Perhaps the most unusual contrast in scores is seen in the final example shown here of the subject with an I. Q. of 96, a G.P.A. equivalent to two of the subjects with I. Q's above the mean, and a total reading score of 7.4 which ranks her twenty-sixth in a class of 29.

Table II

3.0 - 3.8 Grade Point Average Group with Two Variables

Subjects	G.P.A.	NDR(TGEq.)	I.Q.
1.	3.8	13.2	98
2.	3.3	13.6	101
3.	3.3	11.3	113
4.	3.3	8.2	87
5.	3.2	13.8	111
6.	3.1	9.2	108
7.	3.0	11.9	104
8.	3.0	9.8	106
9.	3.0	7.4	96
X	3.2	10.9	103

3. There were twenty subjects in the 2.0 - 2.9 G.P.A. category. Of this group total grade equivalents for reading ranged from 7.2 to 14.+. The two subjects achieving the highest reading scores (14+), had G.P.A.'s of 2.5 and 2.9, and I. Q. scores of 109 and 100 respectively. Of the two groups (2.0 - 2.9 and 3.0 to 3.8) reading scores above the mean were earned by eight subjects in the former, by five in the latter. Mean scores for this sub-group were 10.3 - Reading TGE, 2.5 - G.P.A., and 102 - I. Q.

Teacher education faculties in developing institutions and others might be interested in possible causative factors related to the reading performance of elementary student teachers as seen in this study. In view of the fact that time and space will not permit a detailed analysis of the background data submitted by the subjects, it is hoped that the following information will prove adequate.

Gordon (8) has suggested that high school grades, honor societies, and size of the school have high motivational and prestige value for the student; while Roe (15) and others have claimed that educational performance still reflects (among other things) the parents' education, and their occupation, the latter being the most widely used measure of socio-economic status. Although research workers have been cautioned on this assertion, (4) low achievement of Negroes on certain standardized tests has been frequently attributed to low socio-economic status. Other factors worthy of consideration include the lack of motivation, negative self-concept, and inadequate effort - more especially in instances of relatively high potential for achieving. In Table III the reader will note that of the eleven students who received honors upon graduation from high school, seven were above the mean TGE for the class and included the two highest total reading grade equivalent scores, though there was much variation in G. P. A. and I. Q. scores among these seven. Eight of the fathers of these subjects were laborers, two professionals, and one engaged in trade. Seven had completed elementary school; two high school; and two college.

In addition, seven of these honor students upon high school graduation were members of classes of less than fifty; one in a class of 100; and three in classes from 101 - 500. Data for the entire class revealed that among the fathers, eighteen or 62.06% were laborers, six or 20.70% professional, three, or 10.34% government workers, and two, or 6.90% in

trade. Among the mothers, eighteen or 62.06% were housewives, six or 20.70% domestic workers, two or 6.90% food handlers, two professionals, and one was engaged in health services.

Table III

Seven Variables for Subjects Receiving Honors

At High School Graduation

	Class Size	TGr.Eq. NDR	G.P.A.	Otis I.Q.	C. A.	Educ. Parent	Occup. Parent
1.	A	14.+	2.9	100	23- 2	Grade Sch.	Laborer
2.	A.	14.+	2.5	109	22- 8	College	Teacher
3.	A	13.2	2.3	97	25- 1	College	Teacher
4.	A	11.9	3.0	104	24- 1	Grade Sch.	Laborer
5.	A	9.2	3.1	108	21- 9	Grade Sch.	Laborer
6.	A	9.1	2.8	111	21- 5	Grade Sch.	Laborer
7.	A	7.4	3.0	96	35-10	High Sch.	Laborer
8.	B	11.3	3.3	113	36- 4	Grade Sch.	Laborer
9.	C	13.6	3.3	101	21- 3	High Sch.	Laborer
10.	C	10.3	2.7	89	22- 5	Grade Sch.	Laborer
11.	C	9.9	2.9	113	26- 8	Grade Sch.	Trade
	$\overline{X}$	11.6	2.9	104			
	A/N-13 (1-50)		B/N-2 (51-100)		C/N-14 (101-500)		

Of the six subjects for the entire class whose parents were professionals, three scored considerably higher than the class mean in TGE, three scored above the class mean G. P. A., and five showed I.Q's above the mean. Ages ranged from 20 to 25 years.

One of the three whose parents were government workers scored slightly above the mean in TGE; another scored an I.Q.

slightly above the mean; and all three showed low G.P.A's. Perhaps this small group exhibited more homogeniety of scores and ages than any of the others. Ages were 21, 23, 23.

Of the two whose parents were engaged in trades, one scored more consistently on the three prime variables than any of the other subjects: TGE - 13.8, G.P.A. - 3.2, and I.Q. - 111; the other, with the highest I.Q. of the class (113) scored a 9.9 TGE and 2.9 G.P.A. These two were 21 and 26 years of age.

Approximately one third of the subjects were in the 30 - 40 age range, and two-thirds less than 25. The oldest subject scored a Reading TGE of 13.2, attained the highest G.P.A. (3.8), and an I.Q. of 98, while the youngest scored a TGE of 9.3, attained a G.P.A. of 2.8 and an I.Q. of 106.

Though higher Grade Point Averages were earned by the older subjects, the younger subjects on the whole attained higher total reading scores. The I.Q. range was approximately the same for both groups.

SUMMARY AND CONCLUSIONS

The results of this study are summarized in the following statements and include answers to questions set forth in the Statement of the Problem. (See page 3)

1. The range of Grade Equivalents Scores on the Nelson Denny Reading Tests was 6.8 years.

2. At the 5 percent level of significance, it was found that the mean Total Grade Equivalent on the Nelson Denny

Reading Test for the sample group tested was sufficiently below that of the normative population to justify the elementary-student teachers' need for reading improvement.

3. The correlation coefficient between the scores on the Nelson Denny Reading Test and the Otis Quick Scoring Tests of Mental Ability was .05 and not significant enough to state that these student teachers read at levels commensurate with their Intelligence Quotients.

4. The correlation coefficient between the scores on the Nelson Denny Reading Test and four year Grade Point Averages was .05 and not significant enough to assert that Grade Point Averages of these student teachers were commensurate with their reading performance.

5. The correlation coefficient between the I.Q. scores on the Otis Quick Scoring Test of Mental Ability and four year Grade Point Averages was .10 and not significant enough to state that the Intelligence Quotient scores can be used as predictors of Grade Point Averages of these subjects.

6. Subjects receiving honors on graduation from high school reflected a larger number with reading scores above the class mean than did those in other sub-groups examined.

7. Such variables as age, size of high school graduating class, and education and occupation of parents did not seem to influence the reading scores of the subjects in this study.

8. Differences between means of the sub-groups were not statistically tested due to the fact that there was considerable overlapping or repetition among the constituents.

Since the study was small and not controlled, the results can only be speculative. They, nevertheless, reflect the need for additional study in the area. In an attempt to seek more definite answers to questions relative to the reading performance of student teachers, plans are underway to replicate the study with approximately 200 subjects, equating them, as far as possible, as to age and intelligence.

It is hoped that results from this and the larger study will provide a challenge for teacher education faculties in "Developing Institutions" and others to seek counsel and help for their internes through Reading Improvement Centers available to them.

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